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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,426	01/23/2002	Richard Joseph Vanderah	06005/37771	1924

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EXAMINER	
WONG, ALBERT KANG	

ART UNIT	PAPER NUMBER
2635	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/052,426	VANDERAH ET AL.	
	Examiner	Art Unit	
	Albert K Wong	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-29, and 31-37* is/are rejected.

7)☒ Claim(s) *3 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/7/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. This Office action is in response to the application filed January 23, 2002. Claims 1-37 are pending. The Examiner has approved the formal drawing filed March 29, 2002.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 16, it is not clear what the first and second reporting regulator refers to. Does each of the regulators have or first and a second reporting regulator? Or is the first reporting regulator pertaining to the first regulator?

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4-7, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Cunningham 6,124,806.

Regarding claim 1, Figure 20 teaches the claimed input, processor, memory, and communication circuit. Also, see col. 13, lines 30-45. Col. 14, lines 12-54 teaches the claimed identification number and the marking of sensor data with the id number.

Regarding claim 4, cols. 9-10 teaches the reporting module calculating a gas system parameter such as pressure.

Regarding claim 5, see item 110 or 126.

Regarding claim 6, see col. 14 and Figure 49.

Regarding claim 7, see col. 32, lines 42-46.

Regarding claim 27, figure 20 teaches an electrical connection with port, memory, processor and communication circuit.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2, 8-15, 17-29 and 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham 6,124,806.

Regarding claim 2, Cunningham does not teach that the reporting module is disposed within a fluid pressure regulator. A pressure regulator is a conventional part of a gas meter because the fluid pressure must be regulated to ensure proper flow to the consuming devices. It would have been obvious to place the reporting module anywhere within the meter. Cols. 9-10 teaches the use of a pressure sensor in a gas meter. The location of the module within the regulator would shorten the distance between the sensor and the module and thus simplify installation.

Regarding claim 8, the claimed processor, memory and communication circuit has been discussed in claim 1. As stated in claim 2, it is conventional to include a pressure regulator in a gas meter. A fluid throttling element is inherent in a pressure regulator since some means must be present to provide the regulation function.

Regarding claim 9, see claim 4 above.

Regarding claim 10, a gas meter measures gas through a location. Cunningham teaches a gas meter system.

Regarding claim 11, Cunningham teaches an id number.

Regarding claim 12, figure 1 teaches a central computer (item 126) and a plurality of reporting regulators (104). The throttling element and processor has been discussed above. See cols. 44-46 for a description of central computer and database.

Regarding claim 13, the id number is the meter number which is the origin of the gas consumption information which is received from the sensor.

Regarding claims 14-15, see cols. 44-46.

Regarding claim 17, the sensor gives data or fluid pressure or fluid flow which indicates the status of the device.

Regarding claim 18, the central computer monitors consumption by households. It would have been obvious for the computer to prepares invoices since meter data is typically used for billing purposes.

Regarding claims 19 and 20, it is conventional for centralized meter monitors to engage in bi-directional communication with a host computer in order to update the function of the monitoring unit. Some typical functions include frequency of data transmission, service cutoff, and billing rates. It would have been obvious to incorporate conventional functions within any meter network for their known advantages.

Regarding claim 21, one typical asset function reported is tampering. It would have been obvious for the central computer to generate a repair report or an evaluation report to avoid the theft of services.

Regarding claim 22, it is conventional for a database computer to present information in graphical form for ease of understanding. It would have been obvious to incorporate conventional function for their known advantages.

Regarding claim 23, the use of id numbers, sensors, the marking of sensor data with the id, and the transmission of data has been discussed above in the discussion of the related hardware. Col. 33 teaches the use of a monitoring system for a high pressure gas line. It would have been obvious that such a monitoring device may be used to detect leaks and thus the pressure may be controlled within the system by shutting off the gas.

Regarding claim 24, see col. 34 which describes a wireless connection using IP.

Regarding claim 25, this limitation has been addressed above.

Regarding claim 26, the creation of keys and link is conventional in a database for search purposes. It would have been obvious to incorporate conventional steps for their known advantages.

Regarding claims 29 and 31, these limitations have been addressed above.

Regarding claim 32, one conventional mathematical instruction is rate billing or time of use billing. It would have been obvious to use this calculation to reduce consumption at peak times.

Regarding claim 33, the transmission of data at set times is conventional and provides the obvious advantage of lower bandwidth because the meters do not have to be polled.

Regarding claim 34, the id number associated with the meter is also associated with the port. It would have been obvious to mark the data with the origin for billing purposes.

Regarding claim 35, this limitation has been addressed above.

Regarding claims 36 and 37, since the id number must be associated with the sensor data at some point it must be loaded within memory. The particular time the number is loaded is considered an obvious design choice since it is not critical.

8. Claims 3 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art is considered relevant because they teach other aspects of automated meter systems and meters. Jiles and Adams teach the use of pressure regulators in gas meters. Meyer and Fierro teach the use of time stamps. Applicant should consider all cited references prior to preparing a response.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert K Wong whose telephone number is 571-272-3057. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Albert K. Wong
January 24, 2005